

## REMARKS

This paper is submitted in response to the office action mailed February 15, 2008, in connection with the above-identified application (hereinafter, the "Office Action"). The Office Action provided a three-month shortened statutory period in which to respond, ending on May 15, 2008. Submitted herewith is a Petition for a Three-Month Extension of Time extending the due date to August 15, 2008. Accordingly, this Response is timely submitted.

Currently pending in the present application are Claims 1 through 21. Claims 1 through 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cimarelli et al. (Tetrahedron: Asymmetry (2002, 13(22), 2417-26) (hereinafter "*Cimarelli*"). Applicants respectfully disagree with this rejection by the Examiner.

*Graham v. John Deere Co. of Kansas City*, 383 U. S. 1, 17–18 (1966), establishes an objective analysis for applying §103 to a question of obviousness: "the scope and content of the prior art are . . . determined; differences between the prior art and the claims at issue are . . . ascertained; and the level of ordinary skill in the pertinent art resolved." The USPTO bears the burden of establishing a *prima facie* case of obviousness based on the results of the factual inquiries under *Graham*. The *prima facie* case generally requires three showings: 1) some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings; 2) a reasonable expectation of success; and 3) that the prior art reference or combination of references teaches or suggests all the claim limitations. MPEP §2143.

The Applicants respectfully submit that a *prima facie* case of obviousness has not been established. A *prima facie* case of obviousness must establish some apparent reason why one would modify the expressly disclosed compounds to achieve the compounds expressly claimed in the present invention. See *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006))('[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.') According to the Supreme Court, a proper case of *prima facie* obviousness must be articulated to a patent application by setting forth the reasoning and underlying rationale used to arrive at a legal conclusion of obviousness. *Id.*

In the present case, the Examiner merely states that "one having ordinary skill in the art at the time that applicant's invention was made would have had a reasonable expectation of success in using structurally obvious compounds to those disclosed in *Cimarelli* in a process of making chiral alcohols." The Examiner merely states that the skill of an ordinary artisan would

have allowed that artisan to use positional isomers of the compounds disclosed in *Cimarelli* and expect that such positional isomers would have been useful in making chiral alcohols.

Applicants note that the present invention features the use of the claimed compounds for the enantioselective arylation of aldehydes which is different from *Cimarelli*. *Cimarelli* teaches or suggests the use of its disclosed compounds for the enantioselective alkylation of aldehydes.

The Applicants have found that the compounds of the present invention, for example, are highly efficient chiral ligands in asymmetric phenyl transfer reactions. Table 1 shows that such compounds provide for ee in the range from 88.4% to as high as 99%. Such high ee are especially seen in the example compound IB.


There is no reasonable expectation of similar properties that the allegedly structurally obvious compounds would provide for high ee for the arylation of aldehydes. *Cimarelli*'s expressly listed compounds provide for ee ranging from 12% to 89%, and this is for an alkylation not an arylation.

It would not be obvious to one of ordinary skill in the art to extrapolate the results of an alkylation reaction (i.e., high ee) to an arylation. Furthermore, the results of the alkylation reaction are based on actual chiral ligands in *Cimarelli* that are excluded from those in the present application.

In view of the foregoing arguments Applicants respectfully request that the claims of the present application be reconsidered. If a telephone interview would be of assistance in advancing the prosecution of this application, Applicants' undersigned attorney invites the Examiner to telephone him at the telephone number provided below.

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Date: Aug. 6, 2008